<u>RAW SEQUENCE LISTING</u>

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: <u>10/533,144</u>
Source: <u>PCT</u>
Date Processed by STIC: <u>6/30/06</u>

ENTERED

PCT

RAW SEQUENCE LISTING   DATE: 06/30/2006
PATENT APPLICATION: US/10/533,144   TIME: 08:47:13

Input Set : F:\seqlist.txt
Output Set: N:\CRF4\06302006\J533144.raw

```
 4 <110> APPLICANT: MASUDA, ESTEBAN
 6 <120> TITLE OF INVENTION: METHODS OF SCREENING CYCLIC PEPTIDES AND
 7       IDENTIFYING TARGETS THEREFOR
10 <130> FILE REFERENCE: RIGL-023
12 <140> CURRENT APPLICATION NUMBER: 10/533,144
13 <141> CURRENT FILING DATE: 2005-04-27
15 <150> PRIOR APPLICATION NUMBER: US03/27370
16 <151> PRIOR FILING DATE: 2003-08-30
18 <150> PRIOR APPLICATION NUMBER: 60/407,385
19 <151> PRIOR FILING DATE: 2002-08-30
21 <160> NUMBER OF SEQ ID NOS: 2
23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 1227
27 <212> TYPE: DNA
28 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: recombinant polynucleotide
33 <220> FEATURE:
34 <221> NAME/KEY: CDS
35 <222> LOCATION: (1)...(1227)
37 <220> FEATURE:
38 <221> NAME/KEY: misc_feature
39 <222> LOCATION: 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171
40 <223> OTHER INFORMATION: n = A,T,C or G
43 <400> SEQUENCE: 1
44 atg gag agc ggc agc ccc gag atc gag aag ctg agt cag agc gac atc      48
45 Met Glu Ser Gly Ser Pro Glu Ile Glu Lys Leu Ser Gln Ser Asp Ile
46 1               5                   10                  15
48 tac tgg gac agc atg gtg agc atc acc gag acc ggc gtg gag gag gtg      96
49 Tyr Trp Asp Ser Met Val Ser Ile Thr Glu Thr Gly Val Glu Glu Val
50               20                  25                  30
52 ttc gac ctg acc gtg ccc ggc ccc cac aac ttc gtg gcc aac gac atc     144
53 Phe Asp Leu Thr Val Pro Gly Pro His Asn Phe Val Ala Asn Asp Ile
54            35                  40                  45
```

W-->
```
56 atc gtc cac aac agc nnn nnn nnn nnn tgc atc agc ggc gac agc ctg     192
57 Ile Val His Asn Ser Xaa Xaa Xaa Xaa Cys Ile Ser Gly Asp Ser Leu
58        50                  55                  60
60 atc agc ctg gcc agc acc ggc aag agg gtg agc atc aag gac ctg ctg     240
61 Ile Ser Leu Ala Ser Thr Gly Lys Arg Val Ser Ile Lys Asp Leu Leu
62 65                  70                  75                  80
64 gac gag aag gac ttc gag atc tgg gcc atc aac gag cag acc atg aag     288
65 Asp Glu Lys Asp Phe Glu Ile Trp Ala Ile Asn Glu Gln Thr Met Lys
```

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```
66                  85                  90                  95
68 cta gag agc gcc aag gtg agc agg gtg ttc tgc acc ggc aag aag cta      336
69 Leu Glu Ser Ala Lys Val Ser Arg Val Phe Cys Thr Gly Lys Lys Leu
70                  100                 105                 110
72 gtg tac atc cta aga acc agg cta ggc agg acc atc aag gcc acc gcc      384
73 Val Tyr Ile Leu Arg Thr Arg Leu Gly Arg Thr Ile Lys Ala Thr Ala
74         115                 120                 125
76 aac cac agg ttc cta acc atc gac ggc tgg aag agg cta gac gag cta      432
77 Asn His Arg Phe Leu Thr Ile Asp Gly Trp Lys Arg Leu Asp Glu Leu
78         130                 135                 140
80 agc cta aag gag cac atc gcc cta ccc cgg aag cta gag agc agc agc      480
81 Ser Leu Lys Glu His Ile Ala Leu Pro Arg Lys Leu Glu Ser Ser Ser
82 145                 150                 155                 160
84 cta cag cta ggc ctc cgc ggc cag atc gat gtg agc aag ggc gag gag      528
85 Leu Gln Leu Gly Leu Arg Gly Gln Ile Asp Val Ser Lys Gly Glu Glu
86                  165                 170                 175
88 ctg ttc acc ggg gtg gtg ccc atc ctg gtc gag ctg gac ggc gac gta      576
89 Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp Gly Asp Val
90                  180                 185                 190
92 aac ggc cac aag ttc agc gtg tcc ggc gag ggc gag ggc gat gcc acc      624
93 Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly Asp Ala Thr
94         195                 200                 205
96 tac ggc aag ctg acc ctg aag ttc atc tgc acc acc ggc aag ctg ccc      672
97 Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu Pro
98 210                 215                 220
100 gtg ccc tgg ccc acc ctc gtg acc acc ctg acc cac ggc gtg cag tgc     720
101 Val Pro Trp Pro Thr Leu Val Thr Thr Leu Thr His Gly Val Gln Cys
102 225                 230                 235                 240
104 ttc agc cgc tac ccc gac cac atg aag cag cac gac ttc ttc aag tcc     768
105 Phe Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser
106                 245                 250                 255
108 gcc atg ccc gaa ggc tac gtc cag gag cgc acc atc ttc ttc aag gac     816
109 Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe Phe Lys Asp
110                 260                 265                 270
112 gac ggc aac tac aag acc cgc gcc gag gtg aag ttc gag ggc gac acc     864
113 Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu Gly Asp Thr
114         275                 280                 285
116 ctg gtg aac cgc atc gag ctg aag ggc atc gac ttc aag gag gac ggc     912
117 Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys Glu Asp Gly
118         290                 295                 300
120 aac atc ctg ggg cac aag ctt gag tac aac ttc aac agc cac aac gtg     960
121 Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Phe Asn Ser His Asn Val
122 305                 310                 315                 320
124 tat atc atg gcc gac aag cag aag aac ggc atc aag gcc aac ttc aag    1008
125 Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile Lys Ala Asn Phe Lys
126                 325                 330                 335
128 atc cgc cac aac atc gag gac gga tcc gtg cag ctc gcc gac cac tac    1056
129 Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln Leu Ala Asp His Tyr
130                 340                 345                 350
```

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Input Set : **F:\seqlist.txt**
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```
132 cag cag aac acc cca att ggc gac ggg ccc gtg ctg ctg ccc gac aac   1104
133 Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu Pro Asp Asn
134         355             360             365
136 cac tac ctg agc acc cag agc gct ctt tcg aaa gac ccc aac gag aag   1152
137 His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys Asp Pro Asn Glu Lys
138         370             375             380
140 cgc gat cat atg gtc ctg ctc gag ttc gtg acc gcc gcc ggg atc act   1200
141 Arg Asp His Met Val Leu Leu Glu Phe Val Thr Ala Ala Gly Ile Thr
142 385             390             395             400
144 ctc ggc atg gac gag ctg tac aag taa                               1227
145 Leu Gly Met Asp Glu Leu Tyr Lys  *
146                 405
149 <210> SEQ ID NO: 2
150 <211> LENGTH: 408
151 <212> TYPE: PRT
152 <213> ORGANISM: Artificial Sequence
154 <220> FEATURE:
155 <221> NAME/KEY: VARIANT
156 <222> LOCATION: 54, 55, 56, 57
157 <223> OTHER INFORMATION: Xaa = Any Amino Acid
159 <220> FEATURE:
160 <223> OTHER INFORMATION: recombinant polypeptide
162 <400> SEQUENCE: 2
163 Met Glu Ser Gly Ser Pro Glu Ile Glu Lys Leu Ser Gln Ser Asp Ile
164 1               5               10              15
165 Tyr Trp Asp Ser Met Val Ser Ile Thr Glu Thr Gly Val Glu Glu Val
166             20              25              30
167 Phe Asp Leu Thr Val Pro Gly Pro His Asn Phe Val Ala Asn Asp Ile
168             35              40              45
```

W--> `169 Ile Val His Asn Ser Xaa Xaa Xaa Xaa Cys Ile Ser Gly Asp Ser Leu`

```
170         50              55              60
171 Ile Ser Leu Ala Ser Thr Gly Lys Arg Val Ser Ile Lys Asp Leu Leu
172 65              70              75              80
173 Asp Glu Lys Asp Phe Glu Ile Trp Ala Ile Asn Glu Gln Thr Met Lys
174             85              90              95
175 Leu Glu Ser Ala Lys Val Ser Arg Val Phe Cys Thr Gly Lys Lys Leu
176             100             105             110
177 Val Tyr Ile Leu Arg Thr Arg Leu Gly Arg Thr Ile Lys Ala Thr Ala
178         115             120             125
179 Asn His Arg Phe Leu Thr Ile Asp Gly Trp Lys Arg Leu Asp Glu Leu
180         130             135             140
181 Ser Leu Lys Glu His Ile Ala Leu Pro Arg Lys Leu Glu Ser Ser Ser
182 145             150             155             160
183 Leu Gln Leu Gly Leu Arg Gly Gln Ile Asp Val Ser Lys Gly Glu Glu
184             165             170             175
185 Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp Gly Asp Val
186             180             185             190
187 Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly Asp Ala Thr
188         195             200             205
```

RAW SEQUENCE LISTING   DATE: 06/30/2006
PATENT APPLICATION: US/10/533,144   TIME: 08:47:13

Input Set : F:\seqlist.txt
Output Set: N:\CRF4\06302006\J533144.raw


```
189 Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu Pro
190     210             215             220
191 Val Pro Trp Pro Thr Leu Val Thr Thr Leu Thr His Gly Val Gln Cys
192 225             230             235             240
193 Phe Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser
194             245             250             255
195 Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe Phe Lys Asp
196         260         ·   265             270
197 Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu Gly Asp Thr
198         275             280             285
199 Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys Glu Asp Gly
200     290             295             300
201 Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Phe Asn Ser His Asn Val
202 305             310             315             320
203 Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile Lys Ala Asn Phe Lys
204             325             330             335
205 Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln Leu Ala Asp His Tyr
206             340             345             350
207 Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu Pro Asp Asn
208         355             360             365
209 His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys Asp Pro Asn Glu Lys
210     370             375             380
211 Arg Asp His Met Val Leu Leu Glu Phe Val Thr Ala Ala Gly Ile Thr
212 385             390             395             400
213 Leu Gly Met Asp Glu Leu Tyr Lys
214             405
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 06/30/2006
PATENT APPLICATION: **US/10/533,144**   TIME: 08:47:14

Input Set : **F:\seqlist.txt**
Output Set: **N:\CRF4\06302006\J533144.raw**

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 160,161,162,163,164,165,166,167,168,169,170,171
Seq#:1; Xaa Pos. 54,55,56,57
Seq#:2; Xaa Pos. 54,55,56,57

VERIFICATION SUMMARY DATE: 06/30/2006
PATENT APPLICATION: **US/10/533,144** TIME: 08:47:14

Input Set : **F:\seqlist.txt**
Output Set: **N:\CRF4\06302006\J533144.raw**

L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:144
M:341 Repeated in SeqNo=1
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:48